



DIMETHYL SULFATE

UN 1595

Shipping Name: Dimethyl sulfate

Other Names: Methyl sulfate

Sulfuric acid, dimethyl ester



WARNING! • **POISON! BREATHING THE VAPOR OR SWALLOWING THE LIQUID CAN KILL YOU! SKIN AND EYE CONTACT CAUSES SEVERE BURNS AND BLINDNESS!**

- Firefighting gear (including SCBA) provides NO protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel

Hazards:

- Odor and irritation are not reliable indicators of the presence of toxic amounts of gas
- Container may BLEVE when exposed to fire
- Vapors are heavier than air and will collect and stay in low areas
- Combustion products include toxic sulfur oxides

Awareness and Operational Level Training

Response:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- Stay upwind and uphill
- Determine the extent of the problem
- BACK OFF! - Isolate a wide area around the release or fire, deny entry and call for expert help
- Remove all ignition sources
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

Description:

- Colorless, oily liquid
- Faint onion-like odor
- Decomposes in water to form toxic sulfuric acid
- Very flammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at -25° F

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Specially trained personnel operating from a safe distance can fight fires using alcohol resistant (AFFF) foam or dry chemical if available in sufficient amounts or use fog streams to extinguish burning liquid or dilute to a nonflammable mixture. Keep exposures cool to protect against re-ignition. Do not direct straight streams into the liquid.
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

First Aid:

- Do not put yourself in danger by entering a contaminated area to rescue a victim
- The contaminated victim poses a health risk to the responder
- Decontaminate the victim from a safe distance with a stream of water; have the victim remove clothing if possible; provide Basic Life Support/CPR as needed
- Further decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
 - ♦ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
 - ♦ Eye - rinse eyes with large volumes of water or saline for 15 minutes
 - ♦ Swallowed - do not make the victim vomit
- Victims should be examined by a physician as soon as possible
- Do NOT perform direct mouth to mouth resuscitation; use a bag/mask apparatus
- Toxic effects may be delayed
- For skin burns decontaminate with water and apply a clean dry dressing

CAS: 77-78-1